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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,979	07/27/2000	Matthew Stainer	FD20014	2684

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MOTOROLA, INC.
CORPORATE LAW DEPARTMENT - #56-238
3102 NORTH 56TH STREET
PHOENIX, AZ 85018

EXAMINER

RAMSEY, KENNETH J

ART UNIT PAPER NUMBER

2879

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/626,979

Applicant(s)

STAINER ET AL.

Examiner

Kenneth J. Ramsey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2-3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-20, drawn to a process for manufacturing a flat panel display, classified in class 445, subclass 24.
- II. Claims 21-23, drawn to a flat panel display, classified in class 313, subclass 495

The inventions are distinct, each from the other because:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the light absorbing strips and conductive ribs can be deposited by screen printing.

During a telephone conversation with William E. Koch on May 1, 2002 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-23 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 13 is indefinite since the term "or the like" has

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no clear meaning. Claim 17 is indefinite since there is no clear antecedent basis for "the photosensitive layer" herein assumed to mean – the second photosensitive layer--.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 7-9, 12-15, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Haven et al (5,543,683). Haven et al, figures 6a and 6b, discloses forming a black matrix by depositing first and second layers of photoresist, developing the photoresist and depositing phosphor on the exposed portions of the substrate within the black matrix material. For purposes of this rejection, Haven et al is assumed to disclose that the substrate is exposed at the bottoms of the phosphor wells. As taught at column 7, lines 24-46, the first layer is exposed and patterned into a black matrix having openings 34 for the depositing of phosphor and the second layer is exposed and patterned into grippers 42 for retaining a spacer wall. As to claim 1, the portions of the black matrix forming narrow wall portions between the phosphor cells extend in a direction parallel to a first edge and the spacer grippers extend in a direction parallel to a third edge. Thus it is inherent that there are corresponding exposed portions of the first and second layers of photoresist that extend in directions parallel to the first and third edges respectively. As to claim 3, since the phosphor cells are divided by walls extending spaced apart from one another and substantially parallel to the first edge, there are corresponding exposed portions that are similarly positioned. As to claims 12,

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13 and 19, the use of alignment features is taught at column 6, lines 14-31. As to claim 5, "up to 20% silver" includes zero percent silver.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-9 and 11-13, 15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haven et al (5,543,683) in view of Sano et al (6,249,264).

Haven et al, figures 6a and 6b, discloses forming a black matrix by depositing first and second layers of photoresist, developing the photoresist and depositing phosphor on the exposed portions of the substrate within the black matrix material. Haven et al differs from claim 1 in that it is not taught to develop the first and second exposed portion such that the substrate is exposed in the bottom of the phosphor wells. Sano, column 9, lines 33-43 and column 10, lines 14-23 teaches the use of a first mask to expose a first photoresist to form barrier walls extending in a first direction and a second mask to expose a second photoresist to form barrier walls of a second height extending in a direction orthogonal to the first direction. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to form the black matrix of figures 6a and 6b by first and second exposures first and second layers photosensitive black matrix material since the patent to Sano et al teaches that the step of forming barrier walls of a second height to extend in the second direction facilitates the depositing of phosphor into the cell spaces. As to claim 2, it is well known to form the substrate of

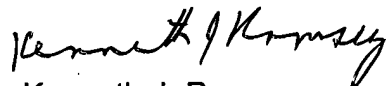
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glass or ceramic. As to claim 11, it is well known to deposit phosphor by screen printing to form the pixels of a display. As to claim 18, the forming of channels in the black matrix to form the phosphor wells is suggested by the channel structure of Sano et al. As to claims 6 and 15, the particular pigment is a well known pigment for black matrix materials of a display panel and would have been obvious in Haven as modified by Sano

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kakinuma and Nanto teach photosensitive glass powder containing black matrix materials.

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not teach or suggest the combined steps of these claims including the step of using a conductive silver containing paste as recited in this claim.

Any inquiry concerning this communication should be directed to Kenneth J. Ramsey at telephone number 703-308-2324.


Kenneth J. Ramsey
Primary Examiner
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